THE COLLEGE STATION COMPREHENSIVE PLAN

CITY OF COLLEGE STATION, TEXAS

DEVELOPMENT GUIDE

AUGUST 1997

AMENDED 10/2000, 4/2001 & 5/2002

PREPARED BY:

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THIS DEVELOPMENT GUIDE IS A BRIEF OVERVIEW OF THE MAJOR ELEMENTS OF THE CITY OF COLLEGE STATION COMPREHENSIVE PLAN, AUGUST 1997.

THEREFORE, SECTION, TABLE AND FIGURE NUMBERS MAY BE DISCONTINUOUS.

The Appendix contains the full Table of Contents, List of Figures and List of Tables contained in the complete College Station Comprehensive Plan document. For more detail regarding these please refer to the complete Comprehensive Plan available through the City of College Station's Development Services Department.

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Larry Ringer - Mayor (1986 - 1996)
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Hubbard Kennady - Place 2 (Mayor Pro Tem)
Nancy Crouch - Place 3 (Former)
Larry Marriott - Place 4
David Hickson - Place 5
Dick Birdwell - Place 6

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SECTION 1

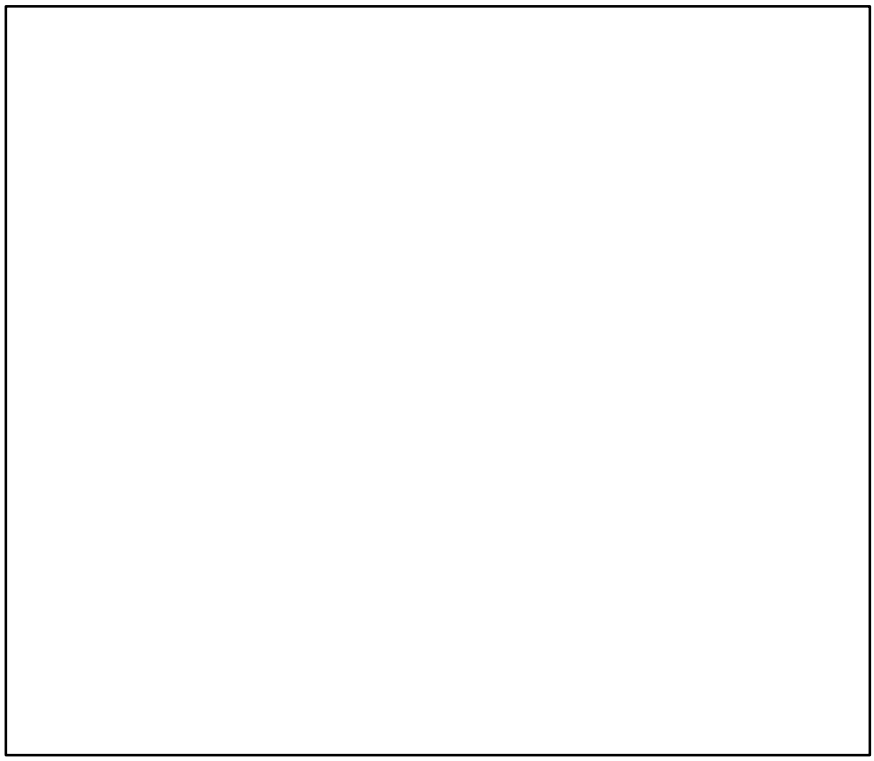
INTRODUCTION

SECTION 1 - INTRODUCTION

1.01 - Background

The City of College Station is located in Brazos County, roughly equidistant between Houston and Austin. The City of Bryan (the Brazos County seat) is the only other incorporated municipality that abuts College Station. Figure No. 1 shows the location of College Station.

Figure No. 1 - Location Map



Since the adoption of the City's previous Comprehensive Plan in 1980, which was updated in 1989, College Station has continued to grow, thus compelling the City to re-study its planning assumptions and conditions and to look 20 years into the future.

In 1994, the City selected a consulting team lead by Hellmuth, Obata + Kassabaum, Inc. (Dallas, Texas) to update and revise the Comprehensive Plan. The planning team also included Barton-Aschman Associates, Inc. (Dallas, Texas), responsible for the transportation and thoroughfare plan, and Camp Dresser & McKee, Inc. (Dallas, Texas), responsible for the water and wastewater system plan.

The area covered by the Plan includes the entire incorporated area of the City of College Station along with most of the City's extraterritorial jurisdiction (ETJ) and some portion of unincorporated Brazos County. It was determined that the City would not seek to grow beyond major natural barriers - including the Carter Creek and Brazos River floodplains. All subsequent references in this report to "College Station" will include this entire planning area.

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1.02 - History

Although the City of College Station was incorporated in 1938, its roots as a community go back to the founding of the Texas Agricultural and Mechanical College (now Texas A & M University). Established in 1876 as a land grant college, the University's closest incorporated cities at that time were Hearne (incorporated in 1864), Navasota (incorporated in 1866), and Bryan (incorporated in 1872). Before the City of College Station was incorporated, several neighborhoods began to develop around the perimeter of the campus:

- Northgate (north of University Drive) was the principal commercial area of the community and contained many campus-oriented businesses. After the City was incorporated, College Station's first City Hall was located in the Northgate area (initially at College Main and Patricia Street in a lease space, then in a building at Church Avenue and Wellborn Road).

- The Eastgate/College Hills neighborhood (east of the campus) was comprised of mostly residential uses, with some commercial development along Highway 6, now known as Texas Avenue.

- The Southside neighborhood (south of the campus) was also comprised of mostly residential uses, with some commercial development along Highway 6. Many of the City's historically-significant homes and structures are located in the Southside neighborhood.

The majority of new growth in College Station continued to be located adjacent to the university through the 1970's. Due to the physical constraints of the City of Bryan to the north, the Brazos River to the west, and Carter's Creek to the east, the 1980 Comprehensive Plan directed future growth to the south of existing development.

In response to the 1980 plan, the City made numerous infrastructure improvements to the south including expansion of SH 6 and the Lick Creek wastewater treatment plant.

The City's growth and prosperity has mirrored that of Texas A & M University. By the 1990s, the University's student population exceeded 40,000, making it one of the largest campuses in the nation.

As the region's principal employer, most College Station residents work either directly for the University or for a business that directly (or indirectly) supports the University market (students, faculty, and staff). The non-University development in College Station - banks, hotels, shopping centers, medical offices, industries, restaurants, etc. - provide employment opportunities for both College Station and Brazos County residents alike. Recently, many former students have been returning to College Station as a retirement destination because of the University, lifestyle amenities, and healthcare facilities.

Texas A & M University currently has capped its student enrollment at approximately 42,000. If the University continues to "cap" its enrollment, other types of development will be necessary to sustain the region if it is to continue to grow. As College Station heads into the next century, its challenge is to continue to encourage quality growth while expanding other forms of residential and non-residential developments which are more independent from a university-based economy.

1.03 - Population Growth

According to Census counts taken since 1950, College Station's population has been steadily increasing. In fact, the City's most prolific decade was 1970-1980, when its annual growth rate was 11.1%, growing from 17,676 persons (1970) to 37,272 persons (1980). The high growth rate of the 1970's continued into the 1980's with the City experiencing close to a 10% annual growth rate during the first three years of that decade. College Station's proximity to the University and to employment areas in the City of Bryan have been a significant influence on its growth.

College Station's growth has continued to increase since the 1990 Census, albeit more modestly. The 1995 estimated population was approximately 58,000 - an average annual growth rate of over 2.1% since 1990. Table No. 1 details the City's growth from 1950 to 1995.

Table No. 1 - Population Growth - 1950-1995

Year	Census Count	Average Annual Growth Rate
1950	7,925	---
1960	11,396	4.4%
1970	17,676	5.5%
1980	37,272	11.1%
1990	52,456	4.1%
1995 (estimated)	58,000	2.1%

Table No. 2 projects the City's 20-year population within a more controlled growth environment. College Station's ability to serve areas with infrastructure and utilities will determine its ability to grow. Based on the 1989 Comprehensive Plan Update population analysis, and after meeting with City officials and the public regarding future growth, a growth rate range of between 2% and 4% was determined as being realistic for the next 20 years in College Station. This growth rate assumption yields a range of 86,200 to 127,000 persons. This population range is the basis for determining the population capacity requirements of the Comprehensive Master Plan.

Table No. 2 - Projected Population Growth - 1995-2015

Year	Low (2%)	Mid. (3%)	High (4%)
1995	58,000	58,000	58,000
2000	64,000	67,200	70,500
2005	70,700	78,000	85,800
2010	78,000	90,400	104,400
2015	86,200	104,700	127,000

SECTION 2

GOALS AND OBJECTIVES

SECTION 2 - GOALS AND OBJECTIVES

2.01 - Methodology

The process of developing a plan for a community, whether it be from scratch or revising an existing plan, must include numerous opportunities for public participation. The public participation process for the College Station Comprehensive Plan consisted of three steps:

- A series of one-on-one interviews with the City's elected and appointed officials - specifically, the members of the City Council, and the Planning & Zoning Commission.

- A series of stakeholder interviews in small groups. "Stakeholders" were comprised of homeowners, business representatives, church leaders, developers, and others with an interest in the future of College Station. A total of 31 stakeholders were interviewed.

- A community-wide survey printed in the local newspaper. Approximately 21,000 survey forms were distributed throughout the College Station/Bryan area. A total of 171 households responded to the survey (equivalent to approximately 477 individuals).

Public participation in the planning process was also encouraged during the project. A series of Community Workshops were conducted during 1994, 1995 and 1996, in addition to public hearings conducted by the College Station Planning & Zoning Commission and City Council.

Based on the input received during the interview/survey process (summarized in Appendices B and C), a list of goals and objectives was developed. These goals and objectives replace the City's existing goals and objectives as contained in the City's 1990 document entitled "Comprehensive Planning Program Volume II - Development Guide".

2.02 - Existing City Vision-Statements

The College Station City Council has adopted the following mission statement and series of "Visions for the 21st Century" to help guide the City's growth.

Existing City Mission Statement

On behalf of the citizens of College Station, the City Council will promote the safety, health, and general well-being of our community within the bounds of fiscal responsibility while preserving and advancing the quality of life for its citizens.

Existing City Vision-Statements

- **Transportation** - Citizens benefit from the ability to move into, out of, and within College Station in a safe and efficient manner.

- **Parks and Recreation**- Citizens benefit from parks and recreational activities that are geographically and demographically accessible and serve a diversity of interests.

- **Health and Public Safety** - Citizens benefit from a reasonably safe and secure environment.

- **Education and Information** - Citizens benefit from access to broad-based information and knowledge.

- **Quality Services** - Citizens benefit from value and quality services delivered at a reasonable tax rate.

- **Cultural Arts** - Citizens benefit from a participation in the arts.

- **Employment and Prosperity** - Citizens benefit from an environment that is conducive to providing diverse employment opportunities.

- **Civic Pride** - Citizens benefit from well-planned, attractive residential and commercial areas, and from preserving historic areas.

After reviewing the City's current mission statement and end-statements, it was determined that these statements remain valid for College Station.

The interview/survey results were combined with the City's existing goals and objectives (the "Volume II" document) to arrive at the following list of goals and objectives to guide the development of the Comprehensive Plan.

2.03 - Land Use Goals and Objectives

Goal #1 - College Station should continue to provide and locate adequate amounts of appropriately zoned land for all necessary types of land uses in an efficient, convenient, harmonious, and ecologically sound manner.

- Objective 1.1 - College Station should plan future land uses together with thoroughfare and utility improvements/extensions in order to assure appropriate access/service for new growth.

- Objective 1.2 - College Station should promote the use of vacant land in the existing sewershed area where City infrastructure and services are readily available in order to avoid costs to the City of providing extended services.

- Objective 1.3 - College Station should continue to avoid strip commercial development (such as that along Texas Avenue) and encourage centralized commercial development which encourages multi-modal access.

- Objective 1.4 - College Station should identify the most appropriate land use for all undeveloped parcels within its City limits and its ETJ and use its development powers (including zoning and capital improvement programs) to guide the locations of desired development.

- Objective 1.5 - College Station should maintain its Comprehensive Plan through periodic updates as changes occur in growth rates or major development policies.

Goal #2 - College Station should continue to provide for the orderly development of existing and future land uses.

- Objective 2.1 - College Station should develop standards for providing appropriate buffering and screening between residential and non-residential uses.

- Objective 2.2 - College Station should develop standards that promote a reduction of land use intensity as development approaches established and future residential areas.

- Objective 2.3 - College Station should encourage compatible in-fill development in areas between neighborhoods, such as neighborhood retail.

- Objective 2.4 - College Station should develop zoning districts which allow a mixture of residential and non-residential uses which complement and support each other with appropriate buffering.

Goal #3 - College Station should continue to protect, preserve and enhance existing and future neighborhoods.

- Objective 3.1 - College Station should continue to protect the integrity of residential areas by minimizing intrusive and incompatible land uses and densities.

- Objective 3.2 - College Station should encourage compatible in-fill development, such as small-scale neighborhood retail, adjacent to residential neighborhoods with appropriate buffering.

- Objective 3.3 - College Station should encourage mixed-use developments which provide for an appropriate combination of residential and support uses.

Goal #4 - College Station should continue to encourage community participation and involvement.

- Objective 4.1 - College Station should continue to actively involve citizens and business interests in the development review and approval process.

- Objective 4.2 - College Station should encourage residents to be actively involved in community decisions and should promote initiatives through community meetings, neighborhood associations, business groups, interest groups, and similar organizations.

- Objective 4.3 - College Station should encourage public-private partnership in resolving community issues.

- Objective 4.4 - College Station should actively inform residents of current land use decisions under consideration and educate citizens and community organizations about the associated issues.

Goal #5 - College Station should encourage development that is in harmony with the environment.

- Objective 5.1 - College Station should prohibit reclamation of the floodway associated with Carter Creek, Lick Creek, Wolf Pen Creek, and the Brazos River in order to prevent upstream flooding, avoid long term structural and erosion problems associated with floodplain reclamation, and to provide a city wide network of natural open space.

- Objective 5.2 - College Station should allow compact, “village”-style development patterns in appropriate areas such as in Northgate and Eastgate/College Hills.

- Objective 5.3 - College Station should continue to comply with all existing and future State and Federal regulations that identify and protect natural areas.

- Objective 5.4 - College Station may consider new land uses and development patterns that were not anticipated by the Compre-hensive Plan, provided these new land uses and development patterns are compatible with the environment and any surrounding development..

Goal #6 - College Station should continue to preserve/protect significant features, such as culturally and architecturally significant historic buildings.

- Objective 6.1 - College Station should inventory all historically significant structures and landmarks within the City limits and ETJ to be used for State and National preservation designation, as appropriate.

- Objective 6.2 - College Station should develop a "Historic Overlay" zoning district which may be applied to historically-significant areas.

Goal #7 - College Station should continue to designate open space and public space areas for recreation and preservation uses.

- Objective 7.1 - College Station should modify its parkland donation/purchase policy to allow "cash in lieu of land" payments to be escrowed for a maximum of 5 years.

- Objective 7.2 - College Station should continue to provide recreational opportunities in new neighborhoods and other developed and "urbanized" areas, such as Northgate.

- Objective 7.3 - College Station should continue to jointly develop and maintain future parks and recreation areas with other public agencies, including the College Station Independent School District, the Bryan Independent School District, the University, the City of Bryan, and Brazos County.

Goal #8 - College Station should designate special districts and corridors in the City limits for unique types of development.

- Objective 8.1 - College Station should continue to allow development of the Wolf Pen Creek District with recreational, retail, office, and residential uses.

- Objective 8.2 - College Station should implement the Northgate Redevelopment Plan as adopted by City Council in December 1995.

- Objective 8.3 - College Station should study the Eastgate/College Hills neighborhood and develop a redevelopment/revitalization plan for this area as a more stable single-family neighborhood.

- Objective 8.4 - College Station should study the Southside neighborhood and develop a preservation/enhancement plan for this area.

- Objective 8.5 - College Station should designate Texas Avenue, George Bush Drive, FM 2818, University Drive, and Wellborn Road as streetscape corridors for enhancement and protection.

- Objective 8.6 - College Station should designate the East Bypass (from Harvey Road to Graham Road) as a "special district" to protect existing and future residential developments from adjacent incompatible uses.

Goal #9 - College Station should continue to review and revise its development ordinances.

- Objective 9.1 - College Station should reformat its development ordinances into a single document (a Land Development Guide) for ease of reference. Any areas of incompatibility and conflict should be identified and resolved.

- Objective 9.2 - College Station should update its Zoning Ordinance to make it compatible with the revised Comprehensive Plan.

- Objective 9.3 - College Station should update its Subdivision Regulations Ordinance to make it compatible with the revised Comprehensive Plan.

Goal #10 - College Station should monitor growth over the next 20 years to assure that the Comprehensive Plan is kept current.

- Objective 10.1 - College Station should review and update of the Comprehensive Plan as warranted based upon changes in population growth, A & M enrollment policies and economic development.

- Objective 10.2 - College Station should monitor its residential growth rate to determine if the annual rate is between 2% and 4%. If the residential growth rate is not

within this range, the City may positively manage its growth through such mechanisms as the Capital Improvements Program, annexation, and other growth management tools.

- Objective 10.3 - The cities of College Station and Bryan should, continue to abide by the joint resolution which determines the ultimate extension of each city's boundary.

2.04 - Housing Goals and Objectives

Goal #1 - College Station should continue to provide an appropriate supply of housing with a wide variety of housing types and costs.

- Objective 1.1 - College Station should continue to maintain the integrity of the existing housing supply by enforcement of the housing code and other controls.

- Objective 1.2 - College Station should continue to review and upgrade the minimum building codes in order to ensure quality and economic construction.

- Objective 1.3 - College Station should continue to encourage new construction which is energy efficient.

- Objective 1.4 - College Station should continue to upgrade neighborhoods and individual structures which are deteriorated or dilapidated.

- Objective 1.5 - College Station should continue to encourage the development of diversified housing types for low- and fixed-income residents through Community Development Block Grant-funded programs and other financial resources.

- Objective 1.6 - College Station should continue to evaluate existing codes relative to advances in technology and materials.

2.05 - Community Appearance Goals and Objectives

Goal #1 - College Station should continue to promote a beautiful and safe environment.

- Objective 1.1 - College Station should continue to improve and maintain the appearance of its municipal properties.

- Objective 1.2 - College Station should continue to promote good site design, provide a good appearance, minimize drainage impacts, and increase pedestrian safety. The City should continue to use high quality design of public buildings and landscaping to serve as a model for the

private sector.

- Objective 1.3 - College Station should develop and encourage innovative solutions that are aesthetically pleasing and environmentally sensitive to abate flooding and drainage problems in the City.

- Objective 1.4 - College Station should continue to minimize and eliminate unsightly conditions such as junkyards, abandoned vehicles, dilapidated buildings/structures/fences, and excessive weeds and rubbish. The City should assure maintenance of signs and fences and the longevity of required landscaping through effective code enforcement.

- Objective 1.5 - College Station should continue to promote community-wide pride in the City.

- Objective 1.6 - College Station should continue to implement its street tree planting program in coordination with the Streetscape Plan (as previously adopted by the City Council).

- Objective 1.7 - College Station should continue to use high quality design of public buildings and landscaping to serve as a model for the private sector.

- Objective 1.8 - College Station should continue to implement the main gateways into the City along major corridors, including Texas Avenue, SH 6, University Drive, SH 47, Wellborn Road, and FM 2818.

Goal #1 - College Station should continue to encourage diversification of the local economy.

2.06 - Economic Development Goals and Objectives

- Objective 1.1 - College Station should continue to encourage industrial, commercial, and residential development to serve residents' needs which is in harmony with the environment and surrounding development patterns.

- Objective 1.2 - College Station should continue to encourage the retention and expansion of existing retail in accordance with the Comprehensive Plan, especially in older redeveloping areas like the Northgate district.

- Objective 1.3 - College Station should continue to attract other professional businesses that would enhance the area's quality of life, including medical care, restaurants,

and small professional offices.

- Objective 1.4 - College Station should continue to promote tourism and convention business, especially with regard to facilities such as the George Bush Presidential Library Center and the University.

- Objective 1.5 - College Station should encourage the development of compatible uses to complement the University, such as additional lodging, restaurant or conference facilities.

- Objective 1.6 - College Station should encourage the kinds of goods and services that attract retirees to the community.

Goal #2 - College Station should continue to work cooperatively with the University, the College Station ISD, the City of Bryan, and Brazos County regarding proposed future plans.

- Objective 2.1 - College Station, the University, the College Station ISD, the City of Bryan, and Brazos County should continue to work closely together to determine creative and innovative solutions that benefit all parties.

- Objective 2.2 - College Station, the University, the College Station ISD, the City of Bryan, and Brazos County should annually review their goals and objectives to determine if the statements are still valid or if revisions are warranted.

- Objective 2.3 - College Station, the University, the College Station ISD, the City of Bryan, and Brazos County should work cooperatively to attract new industries and developments to the region.

2.07 - Transportation Goals and Objectives

Goal #1 - College Station should balance the development of all modes of transportation to assure the fast, convenient, efficient and safe movement of people and goods to, from, and within the community while continuing to protect the integrity of neighborhoods.

- Objective 1.1 - College Station should continue to work with TxDOT to provide for the development/redevelopment of major arterial routes - including Texas Avenue, Wellborn Road, Harvey Road, University Drive, and George Bush Drive - as necessary to help ease traffic congestion.

- Objective 1.2 - College Station should develop and improve minor arterial and collector streets which parallel Texas Avenue to accommodate the need for north/south mobility.

- Objective 1.3 - College Station should continue to develop adequate, safe systems for pedestrian and bicycle movement between neighborhoods, schools, parks, retail/office areas, and the University.

- Objective 1.4 - College Station should continue to work with the University and Brazos Valley Transit to monitor the need for further development of public transportation systems.

- Objective 1.5 - College Station should continue to cooperate with other local entities in efforts to minimize adverse effects of the railroad tracks paralleling Wellborn Road and at-grade crossings on access to the City and the University campus.

- Objective 1.6 - College Station should continue to work with the University to provide adequate air transportation by continuing the development of air transportation facilities as part of an overall transportation plan and connections to the ground transportation system. The City should also continue to support the on-going development of Easterwood Airport through runway extensions, terminal improvements, and additional air carrier service, as needed.

- Objective 1.7 - College Station should continue to provide for the routing of goods and services delivery vehicles to assure minimal adverse impacts on residential neighborhoods.

- Objective 1.8 - College Station should work to encourage the reduction of travel through demand management techniques such as carpooling and van-pooling.

Goal #2 - College Station should continue to ensure the development, maintenance and operation of a safe, efficient and effective transportation system to serve the City.

- Objective 2.1 - College Station should continue to develop and maintain a transportation planning process which addresses long range needs and emphasizes short and mid-range problem-solving.

- Objective 2.2 - College Station should continue to develop and maintain regularly-scheduled programs and funding

strategies to implement new thoroughfare plan street improvements, ensuring adequate capacity at the least cost to the City without compromising service, delivery, or quality.

- Objective 2.3 - College Station should continue an organized preventative maintenance program, including the residential street pavement management programs, to ensure safety and long, economical life.

- Objective 2.4 - College Station should continue to provide a system of bikeways and walkways throughout the City and provide incentives for the use of non-motorized transport. The City should also continue to revise and update its Citywide Bikeway Master Plan.

- Objective 2.5 - College Station should encourage the provision of railroad facilities, and service to the City's established and future industrial areas, which are compatible with traffic operations and safety considerations.

- Objective 2.6 - College Station should encourage the provision of a fiscally responsible transit system which gives consideration to journey-to-work trips, the needs of transit dependent persons, and opportunities for inter-modal transfer.

Goal #3 - College Station should continue to ensure a balanced relationship between land use development and the transportation system.

- Objective 3.1 - College Station should maintain administrative procedures and responsibilities for the preparation, review and approval of transportation plans which are directly related to proposed land use development plans.

- Objective 3.2 - College Station should continue to maintain a Master Thoroughfare Plan which is coordinated with the land use development considerations represented in the Comprehensive plan which permits the following:

  a. Right-of-way dedications as specified by the Master Thoroughfare Plan.

  b. Right-of-way acquisition necessary to improve intersection capacity and thoroughfare continuity.

c. Intersection designs and street alignments to meet existing and projected traffic demand.

d. Dedication of street system rights-of-way in those areas of the community that are undeveloped.

- Objective 3.3 - College Station should continue to enforce street design criteria for all new developments.

- Objective 3.4 - College Station should continue to coordinate local, State and Federal street/highway improvement project planning with existing and projected land uses.

- Objective 3.5 - College Station should locate and design thoroughfares to provide a high level of design amenity and neighborhood preservation, including the consideration of neighborhood traffic management programs in developed areas.

- Objective 3.6 - College Station should continue to promote its functional classification system to provide for the graduation of traffic flow from the movement function to the access function.

- Objective 3.7 - College Station should continue to promote a program of access management to minimize vehicular conflicts on collector and arterial streets.

Goal #4 - College Station should develop a street and parking system which ensures economically healthy cultural, historic, civic, and commercial areas.

- Objective 4.1 - College Station should provide adequate and strategically located parking to serve business, government, and cultural activities in existing areas and in the proposed Civic Center area as contained in the Comprehensive Plan.

- Objective 4.2 - College Station should provide for physical and operational improvements to the street system which enhance the orderly, safe and efficient movement of vehicular traffic and pedestrians to, through, and within existing businesses and cultural areas and the proposed Civic Center area. as contained in the Comprehensive Plan.

- Objective 4.3 - College Station should continue to promote and maintain a program to minimize the use of on-street

parking where it interferes with or otherwise impedes the flow of traffic on collector and arterial streets.

Goal #5 - College Station should provide for the safe movement of pedestrians and bicyclists within College Station.

- Objective 5.1 - College Station should continue to encourage the use of alternate modes of transportation to reduce air pollution and traffic congestion, including transit, bicycle, and pedestrian.

- Objective 5.2 - College Station should continue to encourage that new developments be designed to minimize cut-through traffic, especially in residential neighborhoods and pedestrian areas, such as Eastgate/College Hills, the East Bypass neighborhoods, and Southside.

- Objective 5.3 - College Station should continue to provide sidewalk access in all residential areas, and maintain the existing sidewalk network.

- Objective 5.4 - College Station should adopt street design standards and parking policies which are “bicycle-friendly”.

- Objective 5.5 - College Station should continue to provide bikeways between residential areas, parks, schools, the University, and retail/employment centers.

Goal #6 - College Station should continue to work with the Brazos valley Transit System and the University to provide for efficient bus service within the community.

- Objective 6.1 - College Station should encourage the use of transit to reduce air pollution and traffic congestion by supporting things such as:

  a. Mass transit facilities for existing and new developments.

  b. Texas A & M University Shuttle and Urban Trolley transit service between all residential areas, the University, retail and employment centers, and between regional destinations

- Objective 6.2 - College Station should examine and promote land use concepts which enhance transit usage.

2.08 - Parks and Recreation Goals and Objectives

Goal #1 - College Station should continue to enhance its system of parks, recreation facilities, and open space.

- Objective 1.1 - College Station should continue to maintain the high quality and wide variety of park and recreation resources now available to residents and visitors, and to provide for expansion as needed.

- Objective 1.2 - College Station should encourage additional connections between selected parks/recreation areas and residential areas by a system of linear parks/parkways/greenbelts which utilize creek beds, drainage ways, portions of the 100-year floodplain, and other natural features.

Goal #2 - College Station should continue to provide the highest quality parks and recreational facilities.

- Objective 2.1 - College Station should continue to maintain and improve all existing City parks, equipment, and grounds.

- Objective 2.2 - College Station should continue to develop and maintain a variety of parks and park improvements, includingneighborhood playgrounds, “vest-pocket” parks, linear natural corridors, and special streetscape areas in locations such as Northgate and along Texas Avenue.

- Objective 2.3- College Station should continue to jointly develop and maintain parks and recreation areas with other public agencies, including the University, College Station Independent School District, and Brazos County.

Goal #3 - Develop greenbelts to connect park and residential areas.

- Objective 3.1 - College Station should develop a donation/purchase policy to acquire elected portions of the 100-year floodplain on properties that have been platted or developed to provide natural corridors to be used for open space and passive recreation uses that will link parks to one another and to residential areas.

- Objective 3.2 - College Station should, in cooperation with community groups such as the Brazos Greenway Council, designate selected portions of the 100-year floodplain on undeveloped properties as “natural corridors” that are to be used for open space and passive recreation uses that will link parks to one another and to residential areas.

2.09 - Utility Goals and Objectives

Goal #1 - College Station should continue to provide the quantity and quality of utilities needed to assure public health, safety, and accommodation of growth.

- Objective 1.1 - College Station should investigate and develop, if necessary, surface water sources to meet current and future needs.

- Objective 1.2 - College Station should update the water and wastewater master system plan every 10 years and perform a detailed master plan review every 5 years.

- Objective 1.3 - College Station should review and adjust its financial plan to maintain and enhance the City's bond rating to minimize the cost of major capital expenditures.

Goal #2 - College Station should continue to provide the highest level of water service.

- Objective 2.1 - College Station should continue to serve all developed parcels within the city limits with City water service. Water service should be extended to undeveloped areas outside the city limits only as a condition of annexation.

- Objective 2.2 - College Station should develop a water distribution system replacement schedule for older lines in the system, such as the Northgate and Eastgate/College Hills areas, to increase the reliability of the system in these areas.

- Objective 2.3 - College Station should continue to expand both ground and elevated water storage capacity to increase pressure and fire-flow as growth occurs.

Goal #3 - Provide the highest level of sanitary sewer service.

- Objective 3.1 - College Station should continue to serve all developed parcels within the city limits with City sanitary sewer service. Sewer service should be extended to undeveloped areas outside the city limits only as a condition of annexation.

- Objective 3.2 - College Station should identify the older parts of the sanitary sewer collection system and develop a plan for replacement and/or rehabilitation of these lines to reduce system infiltration and increase system reliability.

Goal #4 - College Station should continue to provide for adequate storm drainage and stormwater management.

- Objective 4.1 - College Station should develop a plan to manage current and projected stormwater run-off in accordance with the Comprehensive Plan.

- Objective 4.2 - College Station should begin to address solutions to stormwater management which incorporate "soft" techniques, such as stream side buffers and soil bioengineering, as part of an overall stormwater management plan.

Goal #5 - College Station should continue to provide the highest quality and most efficient solid waste disposal system.

- Objective 5.1 - College Station should continue to encourage reduction or recycling of the total amount of municipal solid waste to reach the USEPA/TNRCC goal of 40% diversion by the Year 2000. The City should continue single-family residential curbside programs and/or other cost-effective programs and establish commercial and multi-family programs to reach the 40% goal.

- Objective 5.2 - College Station should project the useable life-span of its existing landfill and begin planning needed expansions or land acquisitions 5-10 years in advance of actual need.

- Objective 5.3 - College Station should eliminate the landfill disposal of bagged yard waste by promoting "Don't Bag It", backyard composting and/or use of compostable bags for inclusion with "Clean Green" brush collection.

- Objective 5.4 - College Station should expand its recycling facilities to include recycling drop-off centers.

SECTION 3

LAND USE PLAN

3.02 - Existing Land Use Development Pattern

Although College Station has decades of development experience, most of its growth has occurred since 1970. The pattern of development in place in 1995 was field surveyed and mapped. The following land use classifications (almost all of which currently exist in College Station) were used to represent the pattern of land development:

Residential Uses

- **Rural Density** - This classification mixes very low density residential development with agricultural and support uses, with very large average lot sizes (5 acres and higher). This density is similar to the rural development occurring in the City's ETJ and in unincorporated Brazos County.

- **Residential/Low Density** - This classification contains exclusively single-family detached residential development that ranges between ½ to 3 acres/dwelling unit and greater. "Residential/Low Density" developments are similar to existing residential "ranchettes" such as Nantucket and agricultural development in the City's ETJ.

- **Residential/Medium Density** - This classification also contains exclusively single-family detached residential developments, ranging in density from 3 to 6 dwelling units/acre. "Residential/Medium Density" developments are similar to Woodcreek, Windwood, and other existing subdivisions along the East Bypass.

- **Residential/High Density** - This classification also contains exclusively single-family detached residential developments, with densities ranging from 7 to 9 dwelling units/acre. "Residential/High Density" developments are similar to existing residential development in the Southwood Valley area.

- **Residential Attached** - This classification contains exclusively multifamily residential developments, with densities ranging from 10 to 20 dwelling units/acre. "Multifamily Residential" developments are similar to existing apartment, duplex, and quadplex residential developments in Southwood Valley and other areas of the City.

Non-Residential Uses

- **Neighborhood Retail** - Areas permitting neighborhood-scale development of tax-generating developments such as small

retail centers, service commercial, restaurants, etc. These uses are generally dependent on good access to local arterials. The small retail centers in Northgate and Southside are examples of this use

- **Regional Retail** - Areas permitting regional-scale development of tax-generating developments such as retail centers, service commercial, restaurants, etc. These uses are generally dependent on good access to highways and major arterials. Post Oak Mall is an example of this use.

- **Office** - Areas permitting medium-scale development of tax-generating developments such as office parks, corporate offices, and office lease space. These uses are usually dependent on good access to highways and local arterials.

- **Industrial/Research & Development** - Areas permitting medium to large-scale development of tax-generating developments such as industrial/R&D parks, technology centers, clean manufacturing, and assembly/distribution. These developments are very dependent upon good access to highways, rail lines, and/or airports.

- **Mixed Use** - Areas which encourage mixing of compatible land uses such as retail/commercial, office, parks, multifamily, and attached single-family. These uses are developed together in a manner that allows interaction between the uses and that allows each use to support the other uses. The residential uses provide the patrons for the office and commercial uses. the layout of these land uses must take into consideration pedestrian linkages, landscape buffers between the uses, shared site improvements and vehicular circulation. The success of these mixed use areas is directly related to the sensitive master planning of the site layout..

- **Redevelopment** - Currently-developed areas which will experience redevelopment as a result of increased land value. Redevelopment will occur as mixed use developments as described previously. Mixed-use redevelopment areas are projected for areas close to the University, such as Northgate.

- **Public/Institutional** - Schools, churches, hospitals, and other quasi-public uses. These are usually neighborhood-scale develop-ments from 5 to 10 acres and use local streets for access.

- **Civic Center** - The area dedicated to a new civic complex to house such tax-exempt uses as City Hall, police/fire station, municipal courts, etc. Civic centers typically emphasize a "campus" environment which fosters pedestrian access between buildings. Vehicular access is more dependent upon local arterials.

- **Texas A & M University** - Areas which are owned by the University, some of which are currently developed such as the campus and airport, while others are undeveloped agricultural areas.

Undeveloped

- **Parks/Open Space** - Lands dedicated to public recreational uses.

- **Floodplain/Greenbelts** - The 100-year floodplain as defined by the Federal Emergency Management Agency (FEMA), plus additional areas reserved for open space.

- **Agricultural** - Lands that are in use for and anticipated to remain in agricultural use.

- **Rights-of-Way/Easements** - Lands that are reserved for public access and maintenance, such as roadways, drainage easements, utility easements, etc.

- **No Development** - Areas that are not in active use for residential, non-residential, or agricultural purposes.

Existing residential developments are concentrated in corridors defined by Texas Avenue, SH 6, and Wellborn Road. Existing commercial and retail developments are almost exclusively located along major corridors such as Texas Avenue and SH 6, with a few small-scale commercial and retail developments scattered elsewhere in the community. With the exception of the University, College Station has no large concentrations of office space, but there are a few employment areas:

- Medical office space and other supporting uses are located in the southwest portion of College Station in the vicinity of the Brazos Valley Medical Center.

- Office and light industrial uses are along SH 6, Texas Avenue, Wellborn Road, and Graham Road.

- Public/institutional and civic uses are scattered throughout the incorporated City and are usually located along minor and major arterials.

Of the study area within the College Station city limits, 13.5% is in residential development, 27.9% is in non-residential development, and 58.6% is either in agricultural production or is undeveloped.

Of the study area outside the College Station city limits, 2.1% is in residential development, 0.4% is in non-residential development, and 97.5% is either in agricultural production or is undeveloped.

Of the total study area, 5.2% is in residential development, 7.7% is in non-residential development, and 87.1% is either in agricultural production or is undeveloped.

Table No. 5 shows the breakdown of existing land uses in College Station.

With the exception of the City of Bryan which abuts College Station to the north and northeast, there are no other incorporated municipalities adjacent to the City which constrain the potential for future annexation.

Figure No. 2 shows the existing land use development in College Station.

3.14 - Land Use Plan

The Land Use Plan was derived from an analysis of College Station's existing natural systems, development patterns and infrastructure which culminated with the development of a composite suitability analysis. That analysis, together with information derived from interviews with public officials, appointed officials and key stakeholders, and from the newspaper survey was the basis for the development of alternative scenarios for future growth. Those alternative scenarios were presented in community workshops, and through an extensive public participation process, a preferred alternative for future growth, and eventually a Draft Land Use Plan were developed. The Draft Land Use Plan was presented in public hearings before the Planning and Zoning Commission and the City Council in order to receive additional public comment. Based upon those comments, the final Land Use Plan was developed.

The Land Use Plan is intended to provide for ongoing quality development in College Station and the surrounding area while maintaining its environmental and natural qualities. The plan encourages new development which is sensitive to existing development, the City's infrastructure investments, floodplains, treed areas, and traffic movement.

One of the significant aspects of the Land Use Plan is that it does not recommend the extension of utilities - specifically wastewater - beyond the existing service area. The existing service area refers to the area or "sewershed" that can be serviced by the City's existing sewer treatment plants without additional lift stations. By limiting new growth to the existing service area, the need for investment in new main extensions and treatment plants by the City is minimized.

A second significant aspect of the Land Use Plan is that it recommends limiting development in some specific floodplains to allow connections between selected parks, recreation areas and residential areas by a system of linear parkways/greenbelts as shown in the Park Plan. Some floodplains can be utilized for their potential to provide edges to residential neighborhoods, and buffers between incompatible land uses such as retail and residential uses or multi-family and single-family residential uses. These floodplains may also provide for pedestrian and bicycle linkages between homes, schools, parks and businesses through the provision of trails.

The Land Use Plan also recommends redevelopment around the University area, including redevelopment of the Northgate area as a campus-oriented residential neighborhood with retail along the major thoroughfares. A limited amount of redevelopment is also recommended for the College Hills/Eastgate area (east of the campus) which would include retail development along Texas Avenue (across from the campus). One to two blocks of residential redevelopment would buffer Texas Avenue development from the existing single-family residential neighborhoods.

Redevelopment in the Southside neighborhood would reflect medium-density single-family residential in order to preserve the integrity of the neighborhood.

The previous pattern of annexation and growth has extended the College Station city limits along SH 6. With few roadways to handle the increasing traffic, most of the burden is handled by SH 6, Texas Avenue, and Wellborn Road. As a result, traffic congestion has also become a significant problem in College Station. The Land Use Plan responds to this problem by providing locations for the development of support retail and business services within close proximity to future residential developments in order to decrease the need of traveling to the existing "core" of College Station for those services. Also, additional roadways are proposed in the Thoroughfare Plan between SH 6 and Wellborn Road in order to ease traffic congestion.

Figure No. 16 illustrates the Land Use Plan. Table No. 6 details the individual land uses as proposed in the Land Use Plan.

The Year 2015 population is projected to be between 86,200 and 127,000. The Land Use Plan has the capacity to absorb an additional 57,080 to 106,505 persons (see Table No. 7). Added to the current population estimate of 58,000, that yields a total future capacity of between 115,080 and 164,505 persons. This indicates that the Land Use Plan as proposed has the capacity to absorb the projected 20-year projected population, as well as absorb new growth beyond the Year 2015 planning horizon.

The range in population capacity is directly attributable to the range in densities assigned to each residential type. The capacity projection is also a direct result of dedicating additional land to future residential developments. (Much of this growth is contained within the City's sewer service area,

so densities in the unincorporated County are low due to the need for septic systems.)

The subsequent Parks and Open Space Plan (Section 4), Thoroughfare Plan (Section 5), Water and Wastewater Plan (Section 6), and Urban Design Plan (Section 7) are based on the Land Use Plan.

Figure No. 16 - Land Use Plan

Table No. 6 - Future Land Uses

Land Use	City Limits		Outside City Limits		Total Area	
	Acres	Percent	Acres	Percent	Acres	Percent
Residential:						
Rural Density	976.9	4.2%	36,979.9	54.0%	37,956.8	41.3%
Low Density	2,248.2	9.6%	7,368.2	10.8%	9,616.4	10.5%
Medium Density	5,447.8	23.2%	2,005.1	2.9%	7,452.9	8.1%
High Density	697.1	3.0%	0.0	0.0%	697.1	0.8%
Residential Attached	1,000.7	4.3%	0.0	0.0%	1,000.7	1.1%
Redevelopment	376.5	1.6%	0.0	0.0%	376.5	0.4%
Total Residential	**10,747.2**	**45.8%**	**46,353.2**	**67.7%**	**57,100.4**	**62.1%**
Non-Residential:						
Neighborhood Retail	42.0	0.2%	182.9	0.3%	224.9	0.2%
Regional Retail	725.0	3.1%	92.3	0.1%	817.3	0.9%
Office	234.3	1.0%	5.1	0.0%	239.4	0.3%
Light Industrial/R&D	100.0	0.4%	100.0	0.1%	200.0	0.2%
Public/Institutional	507.6	2.2%	27.0	0.0%	534.6	0.6%
Civic Center	50.0	0.2%	0.0	0.0%	50.0	0.1%
Texas A & M University	4,669.2	19.9%	383.7	0.6%	5,052.9	5.5%
Mixed Use	588.4	2.5%	79.7	0.1%	668.1	0.7%
Total Non-Residential	**6,916.5**	**29.4%**	**870.7**	**1.3%**	**7,787.2**	**8.5%**
Undeveloped:						
Park/Open Space	777.9	3.3%	101.0	0.1%	878.9	1.0%
Floodplains/Greenbelts	2,263.7	9.6%	14,807.3	21.6%	17,071.0	18.6%
	2,785.1	11.9%	747.7	1.1%	3,532.8	3.8%
Rights-of-Way/Easements	0.0	0.0%	5,585.7	8.2%	5,585.7	6.1%
No Development	**5,826.7**	**24.8%**	**21,241.7**	**31.0%**	**27,068.4**	**29.4%**
Total Undeveloped						
TOTAL	**23,490.4**	**100.0%**	**68,465.6**	**100.0%**	**91,956.0**	**100.0%**

Table No. 7 - Population Capacity Projection

Residential Type	Acres	Percent developed	DU per acre	Persons per DU	Capacity (persons)
Low Range:					
Rural Density	37,956.8	10%	0.2	2.65	2,012
Low Density	9,616.4	25%	0.5	2.65	3,185
Medium Density	7,452.9	25%	3.0	2.65	14,813
High Density	697.1	75%	7.0	2.65	9,698
Residential Attached	1,000.7	75%	10.0	2.65	19,889
Redevelopment	376.5	75%	10.0	2.65	7,483
Low Range Total	**57,100.4**				**57,080**
Existing Population					**58,000**
TOTAL					**115,080**
Medium Range:					
Rural Density	37,956.8	10%	0.3	2.65	3,018
Low Density	9,616.4	25%	1.8	2.65	11,468
Medium Density	7,452.9	25%	4.5	2.65	22,219
High Density	697.1	75%	8.0	2.65	11,084
Residential Attached	1,000.7	75%	15.0	2.65	27,844
Redevelopment	376.5	75%	15.0	2.65	10,476
Medium Range Total	**57,100.4**				**86,109**
Existing Population					**58,000**
TOTAL					**144,109**
High Range:					
Rural Density	37,956.8	10%	0.4	2.65	4,023
Low Density	9,616.4	25%	3.0	2.65	19,113
Medium Density	7,452.9	25%	6.0	2.65	29,625
High Density	697.1	75%	9.0	2.65	12,469
Residential Attached	1,000.7	75%	20.0	2.65	39,778
Redevelopment	376.5	75%	20.0	2.65	1,497
High Range Total	**57,100.4**				**106,505**
Existing Population					**58,000**
TOTAL					**164,505**

SECTION 4

PARK AND OPEN SPACE PLAN

SECTION 4 - PARK AND OPEN SPACE PLAN

4.01 - Process

Many of the great communities of the United States have emphasized parks and open space as an integral part of their land use and comprehensive planning. Cities with celebrated park systems, including Kansas City, Cleveland, Austin, Pasadena, and Boston, intentionally set aside areas for park development.

Unfortunately over the past 40 years, many other cities have relegated parks and open space to odd-sized and "left-over" parcels, in favor of maximizing development.

The City of College Station Park and Open Space Plan was begun in 1994 in conjunction with the Comprehensive Plan. As with the Comprehensive Plan, goals and objectives were developed through a series of interviews with members of the College Station City Council, Planning and Zoning Commission and Parks and Recreation Advisory Board as well as selected homeowners, business representatives, church leaders, developers and others with an interest in the future of College Station.

Additionally, a community-wide survey was printed in the local newspaper with approximately 21,000 survey forms being distributed (See Appendix C). Of those surveys, a total of 171 households responded. The specific goals and objectives developed as a part of the interviews and surveys are located in Section 2 of this report.

In 1993, the Parks and Recreation Advisory Board developed a survey of the College Station City Council, Park's staff, and its' own members in which the top five park master plan issues for each group were identified. Those issues were incorporated into the planning process and are located in Appendix D.

As the Park and Open Space Plan was being developed, Community workshops and Public Hearings were held in 1994, 1995 and 1996, and comments received during those meetings were incorporated into the plan. The Comprehensive Plan considers parks to be as viable a land use as single-family residential, offices, retail, or any other classification.

While College Station has done a good job in providing a variety of parks, the potential for future development, as shown in the Land Use Plan, indicates the need to revisit the process of siting and developing additional parks. If College Station is projected to effectively double in population over the next 20 years, there will need to be a parallel increase in park and open space development.

The process of projecting future park and open space needs, therefore, is driven by two key factors - population and location:

- Population is a key factor in determining the appropriate number of future parks and their size. Accepted park standards from organizations such as the National Recreation and Park Association help determine the appropriate number and size of parks based on population levels.

- Location is also key for park siting as are visibility, security and accessibility. Strategic parcels should be identified well in advance in order to preserve them for future park use. Sites along creeks, rivers, floodplains, along gently rolling terrain, and heavily treed areas are often most desirable for parks. Additionally, care must be taken in siting parks that attract pedestrians and bicyclists so that

the crossing of major thoroughfares is minimized or eliminated.

4.02 - Existing Core Parks

In the existing and future land use tables presented earlier in this report, parks and open space were classified as "undeveloped". In the strictest sense of the word, parks and open space are not developed as tax-revenue generating uses. They are, however, recreation sites that may have site improvements such as grading, fields, courts, playgrounds, small buildings, etc.

For the purpose of this report, parks and open space will be considered as "undeveloped" land uses, inasmuch as they are not commercially or residentially developed.

The City of College Station is the primary provider of parks and public open space in College Station. The park and open space needs of College Station are unique due to the existence of Texas A & M University within the city limits , the proximity to the City of Bryan, and the expectation on the part of the citizens of College Station for the City to continue to provide a high level of park service.

At Texas A & M University, many of the student, faculty and staff park and open space needs are provided on campus through the provision of ballfields, sports courts, and passive open space areas. The University also operates Hensel Park within the College Station city limits which is a joint-use facility for students and College Station residents. However, it should not be assumed that all of the University related park and open space needs are being met on campus due to the distribution of University students, faculty and staff throughout the region, and the availability of organized athletic leagues within the City.

The proximity of College Station to the City of Bryan may also be impacting the park and open space needs in the City of College Station. If now or in the future, the need for parks and open space is not being met within the City of Bryan, some Bryan citizens may choose to utilize facilities available in the City of College Station. However, it is not believed that College Station's proximity to the City of Bryan has as large an impact upon the park and open space needs within the City as does the existence of Texas A & M University.

In all, a total of 418.80 acres of parkland are provided for 58,000 persons - an average of 7.22 acres of parkland and open space per 1,000 population excluding regional parks (see Table No. 8). College Station is also divided into park zones

for the purpose of existing and future park planning. Eleven park zones currently exist, with a total of 17 zones being identified for future needs. A total of 32 parks currently exist in College Station with 31 developed and one undeveloped. Existing private parks have not been included in this study due to the lack of guarantee of future levels of service.

To determine the appropriate amount of parkland for College Station, the Plan utilized standards developed by the National Recreation and Park Association (NRPA) - an independent, non-profit organization whose purpose is to "advocate quality parks for the American people". Both the 1983 *Recreation, Park and Open Space Standards and Guidelines*, and the 1995 *Park, Recreation, Open Space and Greenway Guidelines* published by the National Recreation and Park Association were utilized.

While the 1995 guidelines have shifted away from absolute numerical standards and encourage community self direction in which park acreage is based upon citizen's desires and specific regional needs, it was determined that because of the high level of service that has been provided in College Station in the past, the national parkland dedication standards developed in the past are still appropriate for the City. Those standards were reviewed in light of the unique factors impacting College Station's park and open space needs, as well as the existing policies and desires of the City of College Station Park and Recreation Department and citizens, in order to determine a level of parkland dedication appropriate for the City. The NRPA has researched the park and open space needs of communities and makes the following recommendations for "core" parkland:

- **Mini-Park** - A mini-park serves a small area and may include picnic areas, playgrounds, and seating. Many school and church playgrounds often function as *de facto* mini-parks. The NRPA recommends that Mini-parks be approximately 1 to 2 acres each and be provided at the ratio of 0.25 to 0.5 acres per 1,000 population. The City currently has six mini-parks with a total of 9.70 acres.

- **Neighborhood Park** - A neighborhood park serves a larger population than a mini-park and may also include more intense recreational activities such as field games, court games and swimming pools. The NRPA recommends that Neighborhood parks be approximately 15 to 20 acres each and be provided at the ratio of 1 to 2 acres per 1,000 population. The City currently has twenty neighborhood parks with a total of 201.62 acres. The city's policy is to

provide for activities that focus on youth and families such as practice areas for soccer, softball, baseball and basketball, and, playground, tennis and picnic facilities. In College Station, neighborhood parks will generally be 10 to 15 acres.

- **Community Park** - Community parks tends to serve many neighborhoods and provide many of the same types of facilities as neighborhood parks with the addition of athletic complexes, large swimming pools, community centers, and nature preserves. The NRPA recommends that Community parks be approximately 25 to 30 acres each and be provided at the ratio of 5 to 8 acres per 1,000 population. The City currently has six community parks with a total of 207.48 acres. In College Station, community parks will generally be 40 - 50 acres and serve one park zone.

- **Regional Park** - Regional parks serve entire cities or regions. Activities available in regional parks may include picnicking, boating, fishing, swimming, camping, trail use, a golf course, etc. Regional parks tend to be large (over 200 acres) and should be provided at the ratio of 5 to 10 acres per 1,000 population. Because of their regional nature, regional parks are usually not figured into the "core" parkland provided by a city.

  A city or a region may only be able to support one or two regional parks. The City currently has one Regional Park with a total of 515 acres.

- **Athletic Complex** - Athletic complexes typically consolidate heavily programmed athletic facilities for activities such as softball, baseball and soccer into a few strategically located sites throughout the community. The location of these facilities is important due to traffic, lighting and noise that are often associated with them. Southwood Park in College Station currently serves as a Community Park as well as the City's only athletic complex. Voter approval was received in 1995 to acquire land for a 150 acre regional athletic park.

- **Recreation/ Community Centers** - Recreation and community centers typically provide a facility for a community's indoor recreation needs. Gymnasiums, group activity rooms and swimming pools are often located within these facilities. In College Station, the existing Lincoln Center is utilized for youth activities and programmed indoor sport recreational programs. The City intends to continue the existing policy of utilizing the multi-

purpose buildings at schools for recreation centers and intends to provide future recreation centers in College Station as needed.

Table No. 8 presents the existing "core" parkland divided by park zone and park type. Additionally, the City owns Lick Creek Park, a 515 acre regional preserve. The acreage of Lick Creek Park has not been included in calculation of park needs under NRPA standards.

Table No. 8 - Existing Core Parkland

Park Zone	Park Name	Existing Parks (acres)			Total Acres
		Mini-Park	Neighborhd.	Community	
1	Hensel Park	--	--	29.70	29.70
	Total - Zone 1	--	--	**29.70**	**29.70**
2	Eastgate Park	1.00	--	--	1.00
	Lions Park	1.50	--	--	1.50
	Merry Oaks Park	--	4.60	--	4.60
	Oaks Park	--	7.50	--	7.50
	New park site (Undeveloped)	--	10.20	--	10.20
	Parkway Park	1.90	--	--	1.90
	Richard Carter Park	--	7.40	--	7.40
	Thomas Park	--	--	16.10	16.10
	Total - Zone 2	**4.40**	**29.70**	**16.10**	**50.20**
3	Central Park	--	--	47.20	47.20
	Cy Miller Park	2.50	--	--	2.50
	Wolf Pen Creek Park	--	19.47	--	19.47
	Total - Zone 3	**2.50**	**19.47**	**47.20**	**69.17**
4	Raintree Park	--	13.00	--	13.00
	Windwood Park	1.00	--	--	1.00
	Total - Zone 4	**1.00**	**13.00**	--	**14.00**
5	Brothers Pond Park	--	16.10	--	16.10
	Edelweiss Park	--	10.90	--	10.90
	Georgie K. Fitch Park	--	11.30	--	11.30
	Longmire Park	--	4.20	--	4.20
	Southwood Park	--	--	44.70	44.70
	Jack & Dorothy Miller Park	--	10.00	--	10.00
	Total - Zone 5	--	**52.50**	**44.70**	**97.20**
6	Anderson Park	--	8.90	--	8.90
	Bee Creek Park	--	--	43.50	43.50
	Brison Park	--	9.20	--	9.20
	Fairview Park	1.80	--	--	1.80
	Gabbard Park	--	10.70	--	10.70
	Lemontree Park	--	15.40	--	15.40
	Wayne Smith Park	--	--	26.28	26.28
	Total - Zone 6	**1.80**	**44.20**	**69.78**	**115.78**
7	Woodway Park	--	6.45	--	6.45
	Total - Zone 7	--	**6.45**	--	**6.45**
8	Emerald Forest Park	--	4.50	--	4.50
	Sandstone Park	--	15.00	--	15.00
	Woodcreek Park	--	6.60	--	6.60
	Total - Zone 8	--	**26.10**	--	**26.10**
9	(No existing parks in Zone 9)	--	--	--	--
10	(No existing parks in Zone 10)	--	--	--	--
11	Pebble Creek Park	--	10.20	--	10.20
	Total - Zone 11	--	**10.20**	--	**10.20**
	TOTAL	**9.70**	**201.62**	**207.48**	**418.80**

4.03 - Projected Future Needs

The NRPA recommends an average of 6.25 to 10.5 acres of mini, neighborhood and community parks per 1,000 population. The City of College Station currently provides an average of 7.22 acres of parkland and open space per 1,000 population. It is recommended that the City provide a ratio of parkland closer to the 10.5 acres per 1,000 population due to the City's young population, a high percentage of rental properties, the citizen's expectation of a high level of park service, and opportunities to encourage visitors and tourism.

By projecting population for each park zone, the ratio of parkland by type and overall parkland per 1,000 persons can also be projected. In some park zones, the average may exceed the 10.5 average recommended by the NRPA, while in others, it may be less than the 10.5 average. This can be attributed to a park zone already exceeding the 10.5 average and expecting little or no future growth; or a park zone that is proposed to be developed at a very low density having a need for a neighborhood or community park, but not having a population to support the minimum park size recommended. In these cases, two park zones were combined in order to share a park facility and provide the level of service needed by both zones. In other zones, the average may be less than the 10.5 average. Overall, the 10.5 figure is used as a guide for areawide park/open space development.

Table No. 9 shows the projected population for each park zone and the projected future additional parkland required. The projected Land Use Plan population capacity of 118,049 is within the range of projected future population for College Station.

Table No. 9 - Projected Park Needs by Zone

Park Zone	Future Pop.	Proposed Ratio (acres per 1,000)	Existing Parkland (acres)	Future Parkland (acres)	New Parkland Needed (acres)
1	4,759	10.44	29.70	49.70	20.00
2	11,886	10.11	50.20	120.20	70.00
3	7,260	11.59	69.17	84.17	15.00
4	2,286	12.69	14.00	29.00	15.00
5	16,667	9.61	97.20	160.20	63.00
6	15,914	9.73	115.78	154.78	39.00
7	3,452	13.46	6.45	46.45	40.00
8	1,332	19.59	26.10	26.10	0.00
9	1,993	25.09	0.0	50.00	50.00
10	14,925	8.38	0.0	125.00	125.00
11	7,423	12.15	10.20	90.20	80.00
12	8,205	9.75	0.0	80.00	80.00
13	8,408	7.73	0.0	65.00	65.00
14	2,047	24.43	0.0	50.00	50.00
15	6,803	9.55	0.0	65.00	65.00
16	2,565	19.49	0.0	50.00	50.00
17	2,124	7.06	0.0	15.00	15.00
Total	**118,049**	**10.68**	**418.80**	**1,260.80**	**842.00**

The total amount of parkland is 1,260.80 acres - an average provision of approximately 10.68 acres per 1,000 population. This is acceptable for College Station, although it is slightly higher than the recommended NRPA standard. There are several specific areas that were reviewed during this process:

- **Lick Creek Park** - At 515 acres, Lick Creek Park is the City's principal regional park. Because of endangered plant species and indications of prehistoric human habitation sites, Lick Creek Park has been designated by the City staff and Parks Board to remain a natural area. The City's vision for this park is to fully develop the trail system with bridges across low-lying areas and directional and interpretive markers, and to provide a visitor center for exhibits and meetings.

- **Wolf Pen Creek** - At this time, a revised master plan is being developed for the Wolf Pen Creek corridor. This process will be completed in 1997 and recommendations will be made at that time for additional improvements. The Land Use Plan and Urban Design Plan show this area as being integral to providing continuous off-street pedestrian and bicycle connections within the urbanized portion of College Station. There has been an on-going City concern

with silting and maintenance at the Wolf Pen Creek amphitheater. It is recommended that City staff continue to pursue engineering options to address these drainage and maintenance concerns.

The 1995 *Park, Recreation, Open Space and Greenway Guidelines* published by the NRPA recommend that projected park facility needs be based upon citizen's desires and specific regional needs. Based upon a review of current facility use and deficiencies by the Park and Recreation Advisory Board and Park's staff, the following are the projected facility needs for College Station:

- **Basketball Courts (Indoor or Outdoor)** - 1 per neighborhood park and 2 per community park. Currently, 20 basketball courts exist.

- **Racquetball Courts** - None. It is expected that the private sector and the University will continue to provide these facilities as needed.

- **Tennis Courts** - 60 total, including a tennis center. Currently, 12 tennis courts exist.

- **Baseball Fields (Little League)** - 27 total. Currently, 9 exist serving 1300 players. Each field accommodates 150 players. Additional fields will be required in the near future as the number of players increases.

- **Softball Fields** - 12 adult and 8 youth for a total of 20 fields. Currently, 4 adult and 4 youth fields exist. Current demand would support 6 adult and 4 youth fields.

- **Football Fields** - 4 total. Currently, no football fields exist.

- **Soccer Fields** - 36 total. Currently 18 soccer fields exist.

- **Swimming Pools (Outdoor)** - 6 total. Currently, 3 outdoor swimming pools exist.

- **Recreation Center** - 3 total. Currently, 1 recreation center exists.

The above facilities will support College Stations projected 20-year population.

4.04 - Park and Open Space Plan

The Park and Open Space Plan is intended to provide the College Station Parks and Recreation Advisory Board with a guide upon which to base future decisions. Following the concept of the Land Use Plan, the number of acres of parkland required per person in each park zone determines the location of that acreage on the Plan while observing the following criteria:

- Sites should be located substantially outside of the floodplain.
- Neighborhood park sites should be adjacent to residential areas in a manner that serves the greatest number of users.
- Neighborhood park sites should be located so that users are not required to cross major thoroughfares to access them.
- Sites should be located adjacent to schools, where possible, in order to encourage both shared facilities and the potential co-development of new sites.
- Sites should be located adjacent to the open space system so that connections to the trail network may be easily achieved.
- Sites should not be severely sloping and should have existing trees or other scenic elements.
- Parks should be developed in a way that allows for maximum visibility into the site from surrounding residential roads in order to maximize security and discourage illegal activities.
- Parks should have multiple access points to facilitate access from surrounding neighborhoods.
- Community parks located within residential neighborhoods should be developed in a manner that protects the residences from objectionable light, noise and traffic.

Because of the need to consider specific characteristics in the site selection process, the park locations indicated on the Plan are general. The actual locations, sizes, and number of parks will likely be determined in one of the following manners:

- The Plan will be used to determine the number of acres of parkland dedication required of developers and to regulate

the best locations for those parks.

- The Plan will be used to locate desirable park sites before development occurs, and those sites will be purchased by the City or will be received as donations.

- Parks will be co-located with future school sites.

In addition to the 1,260.80 acres of future "core" parkland, the Plan proposes that selected portions of the 100-year floodplain within College Station be identified and used to provide for linkages between parks, schools, homes and businesses, as described in Section 3 (Land Use Plan). These lands may be preserved in either public or private hands; however, it is recommended that the City require that developers provide an easement to the City, adjacent to the floodplain, for the construction of trails and for access of maintenance personnel and vehicles.

Additional opportunities for the preservation of open space exist with the assistance of private groups such as the Nature Conservancy of Texas, the Sierra Club, or other non-profit organizations. In order to benefit from these groups, a survey will be required that identifies sites that may warrant preservation. These sites may include post oak savanna, native prairies, wetlands, or other significant natural sites.

Floodplains are proposed to be linked together by open space "connections" in order to complete the open space system. Because these systems are connections and do not follow any natural feature, the locations shown on the Park and Open Space Plan are general. While it is desirable that the connections be located in a manner that will incorporate some of the City's scenic elements such as ponds and forests into the system, in some cases it may be necessary that they be located along property boundaries and public rights-of-way because of the difficulty associated with acquiring easements.

Table No. 10 shows the individual recommended park improvements by park zone and Figure No. 17 shows the Park and Open Space Plan. In all, a total of 1,260.80 acres of "core" parkland is proposed, comprised of mini-parks, neighborhood parks, and community parks.

Table No. 10 - Future Core Parkland

Park Zone	Park Name	Total Parks (acres)			Total Acres
		Mini-Park	Neighborhd.	Community	
1	Hensel Park	--	--	29.70	29.70
	Future Park "1-A"	--	20.00	--	20.00
	Total - Zone 1	--	**20.00**	**29.70**	**49.70**
2	Eastgate Park	1.00	--	--	1.00
	Lions Park	1.50	--	--	1.50
	Merry Oaks Park	--	4.60	--	4.60
	Oaks Park	--	7.50	--	7.50
	Existing park site	--	10.20	--	10.20
	Parkway Park	1.90	--	--	1.90
	Richard Carter Park	--	7.40	--	7.40
	Thomas Park	--	--	16.10	16.10
	Future Park "2-A"	--	--	35.00	35.00
	Future Park "2-B"	--	--	35.00	35.00
	Total - Zone 2	**4.40**	**29.70**	**86.10**	**120.20**
3	Central Park	--	--	47.20	47.20
	Cy Miller Park	2.50	--	--	2.50
	Wolf Pen Creek Park	--	19.47	--	19.47
	Future Park "3-A"	---	15.00	--	15.00
	Total - Zone 3	**2.50**	**34.47**	**47.20**	**84.17**
4	Raintree Park	--	13.00	--	13.00
	Windwood Park	1.00	--	--	1.00
	Future Park "4-A"	--	15.00	--	15.00
	Total - Zone 4	**1.00**	**28.00**	--	**29.00**
5	Brothers Pond Park	--	16.10	--	16.10
	Edelweiss Park	--	10.90	--	10.90
	Georgie K. Fitch Park	--	11.30	--	11.30
	Longmire Park	--	4.20	--	4.20
	Southwood Park	--	--	44.70	44.70
	Jack & Dorothy Miller Park	--	10.00	--	10.00
	Southwood Park expansion (5-	--	--	17.00	17.00
	A)	--	--	40.00	40.00
	Future Park "5-B"	2.00	--	--	2.00
	Future Park "5-C"	2.00	--	--	2.00
	Future Park "5-D"	2.00	--	--	2.00
	Future Park "5-E"	**6.00**	**52.50**	**101.70**	**160.20**
	Total - Zone 5				

Table No. 10 (continued)

Park Zone	Park Name	Total Parks (acres)			Total Acres
		Mini-Park	Neighborhd.	Community	
6	Anderson Park	--	8.90	--	8.90
	Bee Creek Park	--	--	43.50	43.50
	Brison Park	--	9.20	--	9.20
	Fairview Park	1.80	--	--	1.80
	Gabbard Park	--	10.70	--	10.70
	Lemontree Park	--	15.40	--	15.40
	Wayne Smith Park	--	--	26.28	26.28
	Future Park “6-A”	--	--	35.00	35.00
	Future Park “6-B”	2.00	--	--	2.00
	Future Park “6-C”	2.00	--	--	2.00
	Total - Zone 6	**5.80**	**44.20**	**104.78**	**154.78**
7	Woodway Park	--	6.45	--	6.45
	Future Park “7-A”	--	--	40.00	40.00
	Total - Zone 7	--	**6.45**	**40.00**	**46.45**
8	Emerald Forest Park	--	4.50	--	4.50
	Sandstone Park	--	15.00	--	15.00
	Woodcreek Park	--	6.60	--	6.60
	Total - Zone 8	--	**26.10**	--	**26.10**
9	Future Park “9-A”	--	--	40.00	40.00
	Future Park “9-B”	--	10.00	--	10.00
	Total - Zone 9	--	**10.00**	**40.00**	**50.00**
10	Future Park “10-A”	--	--	50.00	50.00
	Future Park “10-B”	--	15.00	--	15.00
	Future Park “10-C”	--	15.00	--	15.00
	Future Park “10-D”	--	15.00	--	15.00
	Future Park “10-E”	--	15.00	--	15.00
	Future Park “10-F”	--	15.00	--	15.00
	Total - Zone 10	--	**75.00**	**50.00**	**125.00**
11	Pebble Creek Park	--	10.20	--	10.20
	Future Park “11-A”	--	15.00	--	15.00
	Future Park “11-B”	--	15.00	--	15.00
	Future Park “11-C”	--	10.00	--	10.00
	Future Park “11-D”	--	--	40.00	40.00
	Total - Zone 11	--	**50.20**	**40.00**	**90.20**

Table No. 10 (continued)

Park Zone	Park Name	Total Parks (acres)			Total Acres
		Mini-Park	**Neighborhd.**	**Community**	
12	Existing park site	--	15.00	--	15.00
	Future Park "12-A"	--	--	50.00	50.00
	Future Park "12-B"	--	15.00	--	15.00
	Total - Zone 12	--	**30.00**	**50.00**	**80.00**
13	Future Park "13-A"	--	--	50.00	50.00
	Future Park "13-B"	--	15.00	--	15.00
	Total - Zone 13	--	**15.00**	**50.00**	**65.00**
14	Future Park "14-A"	--	--	40.00	40.00
	Future Park "14-B"	--	10.00	--	10.00
	Total - Zone 14	--	**10.00**	**40.00**	**50.00**
15	Future Park "15-A"	--	--	50.00	50.00
	Future Park "15-B"	--	15.00	--	15.00
	Total - Zone 15	--	**15.00**	**50.00**	**65.00**
16	Future Park "16-A"	--	--	40.00	40.00
	Future Park "16-B"	--	10.00	--	10.00
	Total - Zone 16	--	**10.00**	**40.00**	**50.00**
17	Future Park "17-A"	--	15.00	--	15.00
	Total - Zone 17	--	**15.00**	--	**15.00**
	TOTAL	**19.70**	**471.62**	**769.48**	**1,260.80**

[Note: A future Athletic Complex may be developed either as a part of a future community park or as a separate regional park.]

Figure No. 17 - Park and Open Space Plan

Mini-Park Improvements

A total of 19.7 acres (1.6%) are dedicated to mini-parks. The existing 6 mini-parks - Eastgate, Lions, Parkway, Cy Miller, Windwood, and Fairview - comprise 9.7 acres.

Five new 2-acre mini-parks are added for a total of 11 mini-parks (an additional 10 acres). The City's current policy is to minimize the designation of mini-parks due to the high costs associated with equipping and maintaining numerous small parks. It is recommended that in College Station, new mini-parks be limited to developed areas that have no available land for larger facilities, but that do not currently have adequate park acreage. In undeveloped areas, the acreage that would have been set aside for mini-parks should be added to the acreage of the new neighborhood parks.

Neighborhood Park Improvements

A total of 471.62 acres (37.4%) are dedicated to neighborhood parks. The 20 existing neighborhood parks - Merry Oaks, Oaks, Undeveloped Park Site, Richard Carter, Wolf Pen Creek, Raintree, Brothers Pond, Edelweiss, Georgie K. Fitch, Longmire, Jack & Dorothy Miller, Anderson, Brison, Gabbard, Lemontree, Woodway, Emerald Forest, Sandstone, Woodcreek, and Pebble Creek - comprise 216.62 acres.

Eighteen new neighborhood parks are added for a total of 38 neighborhood parks (an additional 255 acres). New neighborhood parks are proposed in park zones 1, 3,4, and 9-17. It is recommended that future neighborhood parks be 10 to 15 acres in size in order to provide fewer park sites to equip and maintain which is in accordance with existing policy.

Community Park Improvements

A total of 769.48 acres (61.0%) are dedicated to community parks. The 6 existing community parks - Hensel, Thomas, Central, Southwood, Bee Creek, and Wayne Smith - comprise 207.48 acres. One existing community park is proposed to expand by 17.0 acres.

Thirteen new community parks are added for a total of 19 community parks (an additional 545 acres). New community parks are proposed in park zones 2, 5,6, 7, and 10-16.

Regional Park Improvements

It is recommended that the City preserve continuous sections of the 100 year floodplain as open space connectors in order to develop a regional trail network to link new developments as well as existing and future parks. In the development of regional parks, it is also recommended that the City continue to find opportunities to preserve wetlands, native prairie sites, post oak savanna's and other natural and ecologically significant areas for regional parks.

It is also recommended that the City continue to implement many of the recommendations of the Brazos 2020 study such as making open space and trail linkages along Carter Creek into Bryan.

Athletic Complexes

In College Station, little league baseball has been growing at a rate equal to the population growth, and soccer has been growing at a rate higher than the population. This growth has placed a great strain on the existing park facilities and created a need for a new athletic complex. It is recommended that any new athletic complex be adjacent to non-residential land uses; or if located adjacent to residential uses, large vegetative buffers should be provided between the complex and the surrounding residential use. A suitable location for this 150 usable acre facility is being studied by the Parks and Recreation Advisory Board and the City will acquire the most suitable site for this facility within the next two years.

Golf Courses

At the present, there is no municipal golf course within College Station. Golfing facilities are located on the main campus of the University, at Pebble Creek, a commercial driving range on SH 6, and a par 3 golf course on SH 6. The Pebble Creek course is proposed to be expanded in the near future. There are no indications at this time that a municipal golf course is needed. However, should the demand surface, it is recommended that the City consider purchasing some of the floodplain and floodprone areas along either Carter Creek or Lick Creek for a future golf course. A minimum of 150 to 200 acres would be needed, depending on the course's layout.

SECTION 5

THOROUGHFARE PLAN

SECTION 5 - THOROUGHFARE PLAN

5.01 - Plan Purpose

The purpose of the Thoroughfare Plan, as a component of the Comprehensive Plan, is to accommodate the existing and future roadway transportation needs of the community. The development of a coordinated transportation system is designed to address the intermodal and multimodal transportation needs of the City while maintaining and improving the social, economic, and environmental quality.

Function of Thoroughfare Planning

The function of the thoroughfare plan is to define the hierarchy of roadways comprising the existing street system as related to providing for a combination of traffic movement and property access and to provide a guide for determining future roadway and right-of-way requirements for a city. The plan is developed to support the City's land use plan by providing adequate capacity to move people, goods, and services efficiently. It will allow the City to acquire needed right-of-way in advance of or as new development occurs.The plan should be flexible and should be reviewed on a regular basis to incorporate changes in local conditions. The plan is not intended to precisely locate and size all future roadways in the area; rather, it is a guide that will indicate the appropriate combination of roadway capacity and property access needed to provide for a balance between public mobility and neighborhood integrity in each sector of the City. In developed sections of the City, the thoroughfare plan provides guidance for upgrading and or protecting the integrity and character of existing thoroughfares and neighborhoods.

Thoroughfare Planning Process

The process of developing a thoroughfare plan requires the consideration of elements that effect travel demands, movement and access requirements, and physical constraints to roadway construction. The first consideration in developing a thoroughfare plan is the City's land use plan. The type of land uses that are existing or planned for an area drive the roadway capacity and access needs for that area. A densely developed commercial area will require more closely spaced roadways with greater capacity than a low density residential area. Moreover, special efforts may be required in the thoroughfare planning process to assure that the integrity of low density residential neighborhoods is protected from unwanted and undesirable vehicular traffic.

The next consideration is balancing the movement and access functions of the thoroughfare system. As will be discussed in a subsequent subsection, roadways serve two competing functions, the movement of traffic and access to properties.

This competition exists as ingress and egress maneuvers from local properties impede the movement of traffic on major roadways, and as high traffic volumes make turning movements into and out of driveways difficult. Structuring a thoroughfare plan such that these two competing functions occur on separate portions of the system is a primary goal of thoroughfare planning. Physical constraints to roadway construction such as rivers, railroads, and existing development are also considered. Efforts are made to cross or avoid these constraints in a logical manner that will minimize roadway construction costs while maintaining efficient operations.

Finally, the process of review and comment on the above described considerations as the plan is developed by governmental decision-makers, civic and neighborhood interest groups, and the citizenry in general is probably the most important step in the planning process. No plan can be successfully implemented without input and support from these groups and individuals which will ultimately determine the balance between maintaining a community's need for mobility and neighborhood integrity.

5.02 - Existing Conditions

An initial step in developing the Thoroughfare Plan component of the College Station Comprehensive Plan is to complete a thorough assessment of existing conditions of the transportation system. This assessment includes identification of Citywide as well as site specific issues. The following sections present a brief description of the City's transportation system and a discussion of the relevant issues.

Existing Transportation System and Services

College Station is served by a system of state, regional , and local highways. These highways include SH 6, SH 30, FM 60, FM 2818 and FM 2154/Wellborn Road. The map in Figure No. 18 illustrates the location of major roadways and railroads in College Station.

- SH 6 serves as the major north-south highway through the City and has both a business route(Texas Avenue) and a freeway bypass route to the east (SH 6 East Bypass).

- FM 2818 serves as a western expressway bypass to SH 6/Texas Avenue through College Station with signalized intersections and some grade separations at major interchanges.

- SH 30/Harvey Road and FM 60/University Drive provide access into and out of the City from the east and west.

Figure No. 18 - Existing Street System

5.03 - Thoroughfare Plan Development

The following section discusses the range of recommendations associated with the Thoroughfare System Plan for the City of College Station.

Functional Classification System

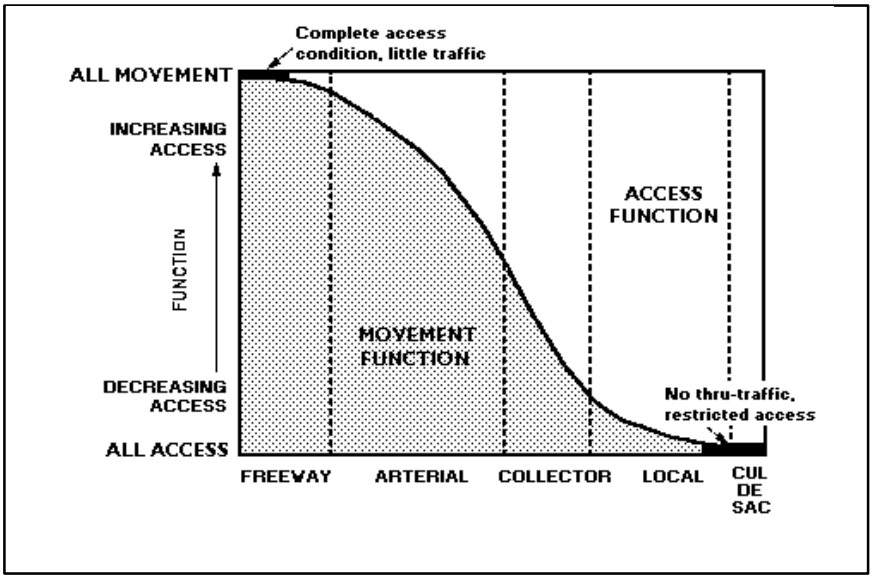
The Master Thoroughfare Plan proposed for the City of College Station is based on a system of functionally classified roadways. These functional classifications are intended to reflect the role or function of each roadway within the overall thoroughfare system.

The functional classifications describe each roadway's function and reflect a set of characteristics common to all roadways within each classification. Functions range from providing mobility for through traffic and major traffic flows to providing access to specific properties. Characteristics unique to each classification include degree of continuity, general capacity, and traffic control characteristics. Figure No. 23 illustrates the relative roles of each classification to achieve its intended function.

The system is hierarchical in nature and includes *major* and *minor arterials* and *major and minor collectors*. The arterials are intended to provide mobility and access to large areas and activity centers.

The collector system is intended to collect and distribute traffic between the arterial system and individual land uses within the area. Arterials carry longer trips and should therefore form continuous links to carry traffic through as well as to areas. Collectors supplement the arterial system and should not be continuous for long distances. A few existing collectors provide connections between arterials; but new collectors should generally not provide direct routes between arterials.

Figure No. 23 - Roadway Function By Classification



Ideally, neighborhoods should be developed between arterial streets so that through traffic is routed around - not through - these areas. Collectors should penetrate the neighborhoods to collect and distribute traffic but not provide convenient, cut-through routes. Land use planning efforts should encourage compatible land uses adjacent to streets. Commercial activities should be developed in such a way that the primary mobility function of arterials are not degraded through access management. Wherever concentrations of traffic occur on collector streets, consideration should be given to not allowing houses to front on the street. Good subdivision designs can allow ample lot yields while orienting houses to local streets and not the collectors.

Table No. 11 describes the most important characteristics of the street functional classifications. The arterial and collector classifications include major and minor subclasses. Table No. 12 provides definitions of roadway conditions levels of service that are generally applied to the different roadway functional classifications.

While the above described conditions are ideal, it may not be practical or even possible to modify the existing streets in already developed neighborhood to conform the desired design standards for all of the street functional classifications. In these cases, as in the neighborhood along Munson between Lincoln and Dominik, innovative approaches, such as special

street widths (which may not meet approved roadway design criteria) and traffic management and calming measures (which may not meet the design standards applied to new developments) may need to be employed to assure that neighborhood integrity is preserved while providing mobility.

Table No. 11 - Roadway Functional Classifications and General Planning Guidelines

Table No. 12 - Definition of Level of Service

Level of Service	Total Delay (sec./vehicle)	Description	Street Types (Example)
A and B	<6.5 6.5 ≤ 19.5	No delays in intersections with smooth progression of traffic. Uncongested operations; all vehicles clear in a single signal cycle at signalized intersections.	Rural or residential streets. (N. Dowling Rd.)
C	19.5 ≤ 32.5	Moderate delays at intersections with satisfactory to good progression of traffic. Light congestion; occasional back-ups on critical approaches.	Collector street at off-peak hours. (Glade)
D	32.5 ≤ 52.0	Little or no progression of traffic along the roadway with a high probability of being stopped at every signalized intersection experiencing "D" condition. Significant congestion on critical approaches, but intersection functional. Vehicles required to wait through more than one cycle during short peaks.	Collector streets at peak hour (Dominik) This is the design level of service for urban conditions.
E	52.0 ≤ 78.0	Heavy traffic flow condition. Delays of two or more cycles probable. No progression. Limit of stable flow. Blockage of intersection may occur if signal does not provide for protected turning movements.	Arterial streets at peak hours. (Texas and George Bush)
F	<78.0	Unstable traffic flow. Heavy congestion. Traffic moves in forced flow condition. Three or more cycles to pass through intersection. Total breakdown with stop-and-go conditions.	Freeway during peak hours. (SH 6/East Bypass)

5.04 - Thoroughfare Plan

The proposed Thoroughfare Plan for College Station includes the four functional classifications discussed in the previous section; major arterials, minor arterials, major collectors, and minor collectors. The process of updating the current thoroughfare plan was based upon two major related factors. The first is future land use. The development of a future land use plan is described in Section 3. The other factor was information obtained in a survey of community attitudes and opinions of local citizens, staff professionals, and elected officials. In addition, several workshops and public meetings were held during the planning process to obtain additional input. Some of the major concerns expressed used in guiding the development of the Thoroughfare Plan were presented in Section 5.02.

The second alternative, shown in Figure No. 25, was developed on a facility-by-facility basis to respond to pending development proposals, general public and specific neighborhood concerns, and proposed future land use on a small area basis. Some of the specific features of this alternative are as follows:

- Wellborn Road conforms to the results of TxDOT's Wellborn Corridor Study. This study included consideration of many alternatives and numerous public meetings to reach a consensus on a preferred alternative.

- Access is provided to the University's Special Events Center and the George W. Bush Library as requested by University officials.

- Access and circulation streets in Northgate area are in conformance with the Northgate Redevelopment Plan (adopted separately by the City in December 1995).

- Indirect collectors in residential areas east of the East Bypass as an alternative to the existing plan to connect the existing sections of Appomattox to create a continuous collector street. Theses connection were discussed with the homeowners and include the Appomattox extension from Windwood to the East Bypass Service Road, the Raintree extension to North Forest Parkway, the Foxfire-Stonebrook connection, the Woodcreek-Faulkner connection, the new connection between Emerald Parkway and Sebesta, the Emerald Parkway Extension to Bird Pond and the Rock Prairie Realignment at the East Bypass.

- Direct connection from New Main Drive at Texas to Lincoln. This new alignment is proposed to divert traffic now using Walton as a route between the University through the residential area to the commercial development along University Avenue. Traffic would be diverted to Lincoln without penetrating the single family residential section of College Hills.

- Widening and re-alignment of Kyle between Texas and Dominik.

- Using several north-south streets (Anderson, Glade, and Dexter) in the Southside area at their present widths, with a bike path connection to George Bush at the northern end of Welsh to collectively increase north-south access routes to the University campus while preserving neighborhood integrity and not requiring additional ROW. This option was chosen over several others that suggested making direct connections between off-set sections of Welsh, creating one-way street pairs with Dexter and Welsh, widening and connecting Welsh with George Bush, and connecting sections of Longmire with Anderson.

- Adjustments to the Pebble Creek area street system to serve Lick Creek Park.

- Continuous minor arterials and collectors such as Foster, Anderson, Longmire, and new alignments parallel to Texas Avenue to serve as reliever routes for major north-south traffic and transit patterns and to buffer commercial development from residential areas.

- Several options for improvements to Munson including a one-way couplet with Ashburn connected to Stallings were rejected and subjected to further analysis.

- A bike path connecting Anderson and Longmire through the Arboretum area.

- A collector connection west of Easterwood Airport between FM 60 and the Dowling Road area.

- Designation of the proposed SH 40 as a freeway facility.

Connection of Barron Road with Bird Pond Road as a east-west minor arterial and other north-south arterials and east-west collectors between Rock Prairie and Texas to conform with development proposals.

Connection of Gandy Road with Rock Prairie Road to serve the developing western sector of the City.

- Several unresolved options in the Munson corridor to serve north-south travel patterns between Lincoln and Harvey Road.

- Interface with elements of the City of College Station's Bikeway Master Plan.

- Interface with the City of Bryan Thoroughfare Plan.

Neighborhood Traffic Management

Traffic Management and Calming Measures should be considered as a means to address problems with traffic volumes and speeds in residential neighborhoods where it is difficult or undesirable to provide the needed roadway capacity with a street improvement that might create unwanted traffic conditions and/or require additional street right-of-way which could be damaging to the residential character of the area. Such measures should be used with caution and only when they would not result in shifting the problem to another street or area.

The application of these measures and techniques are particularly appropriate in already established neighborhoods where changes or additions in development in surrounding areas has resulted in vehicular volumes which are incompatible with the character of residential neighborhood traffic. As part of the Thoroughfare Plan development process, the residential neighborhood surrounding Munson Street between Dominik and Lincoln is still being evaluated for such applications.

It should be noted that congestion on surrounding arterial can be expected to continue if neighborhood integrity is chosen to have priority over mobility.

Typical traffic calming measures include:

- Vertical changes in the road (e.g. speed humps, raised intersections).
- Lateral changes in the road (e.g. chicanes, lateral shifts), constrictions (e.g. narrowings, islands, pinch points, chokers, or curb extensions).
- Roundabouts (e.g. traffic circles)
- Small corner radii.
- Gateway features.

- Related landscaping.

Other traffic management, speed calming, and traffic diversion measures include:

- **Speed monitoring systems** - These can include hand-held radar speed detection devices operated by police personnel or SMART (Speed Monitoring Awareness Radar Trailer) machines to aid motorists in knowing the posted speed on the street and the speed at which they are traveling.

- **Street closings, diagonal diverters at intersections, one-way closures(partial diverters) or Cul-de-sac streets** - These measures can be effective in eliminating routes for cut-through traffic, but can also negatively affect access to neighborhood residents and emergency vehicles such as fire ,police, and medical.

- **Raised curb medians and turn restrictions** - These are commonly used measures to prohibit unwanted traffic movements and eliminate conflicting traffic movements, but can also be used a diversion device to re-direct traffic away from areas where it is unwanted or unsafe.

Functional Street Classification Design Standards

College Station's functional classification consists of 5 categories - Resi-dential, Collector, Arterial, Parkway, and Commercial. No sub-classes have been established per se for collector or arterial status roadways in the design criteria, however, the College Station Thoroughfare and Transportation Improvement Plan identifies major and minor arterial class roadways.

A review and comparison of College Station's functional classification design standards to those used in other cities indicates that College Station currently uses a set of standards that are slightly different. The standard functional classifications used in most cities consists of residential, minor collector, major collector and minor arterial classes.

No design standard exists for major arterial class roadways. Table No. 15 lists the comparison of roadway classes between College Station and those of other cities.

Table No. 15 - Functional Class Comparison

Other Texas Cities	College Station
Residential	Residential
Minor Collector	Collector
Major Collector	Minor Arterial, Commercial
Minor Arterial	Major Arterial, Parkway
Major Arterial	-- none --

The design standards for each of the cities compared are very similar. The major difference in most of the standards and those of College Station is the class titles.

Functional Design Criteria

A preliminary set of functional design criteria has been developed based on established standards from other Texas communities, ITE recommended standards and published literature. It is recommended that a standard be developed for the major arterial classification. Table No. 16 describes the preliminary design criteria for each major roadway classification and Figure No. 26 illustrates the cross-sections for each class. The subdivision ordinance for College Station allows that residential streets and collectors wholly contained within a rural residential subdivision may be constructed to a set of standards different than the urban residential collector standards. Design criteria for these rural streets are also described in Table No. 16.

Table No. 16 - Street Design Criteria

Criteria	Residential			Collector			Arterial		
	Alley	Urban	Rural	Rural	Minor	Major	Minor (undiv.)	Minor (div.)	Major (div.)
ROW	24’	50’	70’	80’	60’	70’	90’	90’	120’
Pavement Width	20’	27’	24’	30’	38’	48’ or 54’	70’	70’ or 74’	94’
Traffic Lanes	2	2	2	2	2	3 or 4	5	4	6
Lane Width	10’	12’	12’	15’	11’ or 13’	11’/16’	11’/16’	11’/16’	11’/16’
Shoulder Width	N/A	N/A	2 @ 2’/ea.	2 @ 2’/ea.	N/A	N/A	N/A	N/A	N/A
Continuous Two-Way Left Turn Lane (width)	None	None	None	None	None	Permitted (12’)	Required (16’)	None	None
Parking	None	Permitted (limited)	None	None	Permitted w/o bike lanes	None	None	None	None
Median	None	None	None	None	None	None	None	16’	18’
Min. Grade	.6%	.6%	.6%	.6%	.6%	.6%	.6%	.6%	.6%
Max. Grade	8%	8%	6%	6%	6%	6%	6%	6%	6%
Min. Horz. Radius (center line)	200’	200’	200’	400’	400’	500’	850’	850’	1,050’
Min. Tangent between curves	0’	0’	0’	75’	100’	100’	100’	100’	250’
Sidewalks	None	One-Side	None	None	Both	Both	Both	Both	Both
Design Speed (mph)	30	30	30	30	30	35	40	40	45
Bike Lanes	N/A	N/A	N/A	N/A	Permitted	Permitted	N/A	Permitted	Permitted (limited)
Volume Range (Vehicles/Day) Guideline		200 to 1000	100 to 1000	1000 to 5000	1000 to 5000	5000 to 10,000	10,000 to 20,000	10,000 to 25,000	20,000 to 45,000

Figure No. 25 - Thoroughfare Plan Alternative #2

Figure No. 26 - Roadway Cross-Sections

SECTION 6

WATER AND WASTEWATER SYSTEM PLANS

6.00 - Water and Wastewater System Plan

An integral part of the comprehensive master plan for the City of College Station is evaluation of the potential impacts of the future land use on the water and wastewater systems. To address these impacts, analyses of these systems were performed using both the existing land use and future land use identified in the comprehensive plan. From these analyses, a master plan has been developed that details improvements and associated costs necessary to provide adequate service to the city both for existing needs as well as future requirements. Detailed design and evaluation criteria can be found in Section 6 of Volume 1, along with system results and recommendations.

Figure No. 31 - Recommended Water System Improvements

Figure No. 31 - Recommended Water System Improvements (continued)

Figure No. 32 - Recommended Wastewater System Improvements

SECTION 7

URBAN DESIGN PLAN

SECTION 7 - URBAN DESIGN PLAN

7.01 - Urban Design Needs

A significant goal of the College Station Comprehensive Plan is to preserve and enhance the character of the City. An essential element of the Plan is the establishment of standards for the visual character of new development.

The characteristic most often cited during the visioning process was the quality of life in the College Station area and its small-town atmosphere. To maintain the qualities that make College Station attractive to its residents, a series of urban design guidelines and standards are provided as part of the Comprehensive Plan. The principal goals of the Urban Design Plan are to:

- Establish a distinct identity for College Station.
- Maintain a landscaped atmosphere along the main roadways.
- Protect and buffer established and future residential neighborhoods.
- Provide visual buffering between differing land uses.
- Maintain the present high landscaping standards throughout College Station.

Most urban design opportunities occur in publicly-controlled lands. In College Station, this is generally found in the street rights-of-way, public parks, and public buildings.

The Urban Design Plan proposes roadway enhancements by establishing landscaping, edge treatment and setback standards for major corridors in College Station. It also proposes landscape and screening standards which provide for a long-term preservation and enhancement of the vegetative quality of the community.

The following areas are addressed by the Urban Design Plan:

- Core Area.
- East Bypass.
- Texas Avenue.
- Wellborn Road.

College Station already has numerous ordinances which control the visual environment - signs, landscaping, tree preservation, screening, streetscape, etc. These ordinances are compatible with the goals of the Urban Design Plan, but may need to be revised to clarify their intent and

interpretation. The Urban Design Plan promotes elements based on the City's authority to control them as part of the planning, zoning, and permitting process.

7.02 - Core Area

The "core area" of College Station represents some of the most densely developed portions of the City. The boundaries of the core area are roughly the City of Bryan city limits (to the north), FM 2154/Wellborn Road (to the west), SH 6 (to the east), and Rock Prairie Road (to the south).

The Core Area Urban Design Plan promotes the preservation of floodplains, greenways, creeks, and other natural areas as links which provide pedestrian and bicycle connections between residential areas, schools, and retail/employment areas. This encourages non-vehicular access which, in turn, reduces traffic volumes on congested thoroughfares such as Texas Avenue.

The "park connector" system is a hybrid of both the Urban Design Plan and Park and Open Space Plan. It uses parks as nodes which are connected by other natural features. The "connectors" should not have site improvements such as athletic fields. They should instead have improvements such as trails, signage, and lighting at key intervals. A 10-foot to 12-foot trail would accommodate both two-way pedestrian and bicycle traffic.

Use of the "connectors" would be restricted to pedestrians and bicyclists - motorcycle and equestrian use would not be permitted. (Parallel trails outside the core area for equestrian use would also be appropriate.) This further promotes public safety by minimizing the potential for accidents with motorized vehicles.

This "park connector" system is shown in Figure No. 33.

The City's previously adopted Streetscape Plan is also compatible with the core area urban design plan and should be implemented as approved.

Figure No. 33 - Core Area Urban Design Plan

7.03 - East Bypass

A key component of both the Urban Design and Land Use Plans is an area known as the East Bypass. Located between SH 6 and Carter Creek, the area is comprised of several middle and upper-income neighborhoods, stretching from Harvey Road to Rock Prairie Road. Some of these neighborhoods abut the SH 6 right-of-way, while others are set far back from the highway. During the planning process, numerous comments were received from stakeholders and City staff regarding concerns in this area, such as:

- Concerns about the impact of future development on existing neighborhoods and property values.
- Concerns regarding noise, traffic and light intrusion due to the development of future non-residential uses along SH 6.
- Concerns about traffic volume and speeds through residential neighborhoods, especially if a continuous Appomattox Drive connection is made.

During the planning process, the City was also receiving requests from owners of the undeveloped properties along SH 6 to develop their sites. Many East Bypass residents preferred that these parcels remain undeveloped or be developed as new single-family residential. The developers anticipated more of a non-residential market for properties with highway frontage.

The challenge, therefore, was to develop a plan that would accommodate both residential and non-residential development where appropriate while protecting the existing residential neighborhoods.

The East Bypass Urban Design Plan has the following features:

- By utilizing existing natural buffers, such as floodplains and drainage ways, wide buffers would be maintained between residential and non-residential uses - the buffer would be similar to the “park connectors”, but would be much wider, approximately 100 to 200 feet.
- The City’s current thoroughfare plan proposes that Appomattox Drive be a continuous roadway through the various East Bypass neighborhoods. In response to strong homeowner opposition to that proposal, the Urban Design Plan proposes that Appomattox Drive be continuous only between the Windwood and Raintree subdivisions (see Figures No. 34 and 35).

- Additional medium density residential development is proposed to buffer existing neighborhoods from the industrial park (the former Westinghouse site) between the Raintree and Emerald Forest subdivisions. Perimeter roadways and a treed buffer around the industrial park would further insulate the existing and proposed residential areas. A grid street pattern with culs-de-sac at the buffers would give order and structure to the new neighborhoods.

- Future office development is proposed to be clustered around the Emerald Forest/SH 6 intersection. Either office campus, garden office, or low-rise office buildings not to exceed three stories are proposed. This would promote office development where traffic and parking may be best accommodated. East Bypass residents expressed a preference for office development as an adjacent non-residential use, rather than retail or restaurants. Office developments usually have little evening activity and traffic would tend to be concentrated at the morning and evening peak periods.

- South of Sebesta Road, a neighborhood-oriented shopping village is proposed. This village may also include some low-scale single story, garden offices to create a mixed-use center. Additional medium density residential between the village center and the neighborhood to the east, combined with a bike trail/buffer, would further protect this existing neighborhood.

- The potential for new office and mixed-use centers is proposed along SH 6 between Sebesta Road and Rock Prairie Road. These centers would be developed in a campus-style setting, with two-story structures located immediately adjacent to the highway and single-story structures in the campus interior. Again, a wide landscape buffer would separate the non-residential and residential uses as well as between differing densities of residential uses.

Figures No. 34 and 35 show the East Bypass Urban Design Plan. Figure No. 36 shows cross-sections of how residential and non-residential uses would be buffered.

Figure No. 34 - East Bypass Urban Design Plan (Harvey Road to Emerald Forest)

Figure No. 35 - East Bypass Urban Design Plan (Sebesta Road to Rock Prairie Road)

Figure No. 36 - Buffer Between Residential and Non-Residential Development

7.04 - Texas Avenue

Texas Avenue is College Station's primary thoroughfare. It is one of the few roads that provides access between College Station and Bryan. It also provides significant access between the University and the residential areas south of the campus.

In 1996, Texas Avenue was in the early stages of being upgraded and widened by the Texas Department of Transportation. This provided an ideal opportunity to install additional landscaping and visual enhance-ments:

- The State's plan for Texas Avenue calls for a raised median. It is recommended that this median be landscaped with ground cover, seasonal color, and trees (live oaks are suggested). The planted median will have the effect of visually "breaking up" the wide 6-lane roadway into two tree-lined portions.

- A double row of live oaks are proposed in a 28-foot buffer between the curb and the sidewalk. Where Texas Avenue is adjacent to the University golf course, this treed buffer may be increased to 35 feet.

- A continuous sidewalk between 8 and 12 feet is recommended to accommodate pedestrians on both sides of Texas Avenue.

- At park entrances along Texas Avenue, a different type of tree (bald cypress) is proposed which signifies the presence of parks and "open space connectors".

- As future retail is developed, it is encouraged to be built closer to the street with enough room for the sidewalk and tree buffer. This would create a stronger sense of place and help promote more of a retail district.

These proposed improvements were developed and coordinated with the Texas Department of Transportation's plans for Texas Avenue and can be accommodated within the project right-of-way.

Figure No. 37 presents the recommended cross-sections of Texas Avenue (retail, golf course and retail, and park and retail).

Figure No. 37 - Texas Avenue Urban Design Cross-Sections

7.05 - Wellborn Road

Wellborn Road is the other principal north/south road in College Station that provides access between College Station and Bryan, and to and from the University. It is also bordered on the west side by an at-grade railroad track which has made development of that side of Wellborn Road difficult. The railroad also divides the University's main and west campuses.

Previously, there was a proposal ("low-track") to lower the railroad track through College Station, the University, and Bryan in order to minimize the access problems. That proposal was defeated by voters in College Station and there has been no indication of interest in reviving the project in an alternative form.

In 1996, the State was also in the early stages of designing a new alignment for the "Wellborn Freeway" which would help improve access to the campus and the George Bush Presidential Library currently under construction. Wellborn Road will remain as a major thoroughfare, but will still require additional landscaping and visual enhancements:

- Where retail development is proposed on the east side of Wellborn Road, it is encouraged to be built closer to the street with enough room for the sidewalk and treed buffer to create a stronger identity as a retail district.

- Along the eastern edge, it is recommended that there be a double row of live oaks flanking a 4-foot sidewalk. This sidewalk should be continuous and would only be on the eastern side of Wellborn Road. This would require no additional right-of-way acquisition.

- Along the western edge, it is recommended that there be a treed buffer of live oaks to mask the railroad from the roadway. A similar treed buffer would occur on the western side of the railroad to conceal it from the future Wellborn Freeway. In areas where the freeway is not near the railroad, additional non-residential mixed-use development is proposed, to be buffered by a single row of live oaks. This would require no additional right-of-way acquisition.

These proposed improvements were developed and coordinated with the Texas Department of Transportation's most recent plans for Wellborn Freeway. Figure No. 38 presents the recommended cross-sections of Wellborn Road with the proposed freeway and with future mixed-use development.

Figure No. 38 - Wellborn Road Urban Design Cross-Sections

APPENDIX A

This Appendix contains the full Table of Contents, List of Figures and List of Tables contained in the complete College Station Comprehensive Plan document.

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